REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

I. Interview with Examiner

The Examiners granted Applicants' attorneys a telephone interview on August 5, 2005. Applicants thank the Examiners for extending this courtesy.

II. Status of the Claims

Claims 1-164 are pending in this application. In the Office Action mailed on September 7, 2005, claims 152-157 were restricted as being drawn to a distinct invention and are withdrawn, as stated below. Claims 1-21, 23, 25, 29, 32-45, 47, 49, 55, 57-74, 76-90, 92-96, 98-100, 102-115, 117-122, 127-129, 131, 132, 138-141, 151 and 158-164 were rejected and claims 22, 24, 26-28, 30, 31, 46, 50-54, 56, 75, 91, 101, 123-126, 133-137 and 142-150 were objected to as being dependent on a rejected base claim.

Claims 26, 29, 50, 53 and 75 have been amended to correct typographical errors present in the claims when originally filed.

III. Election of Species

Applicant confirms the election of Group I.

IV. Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 23, 25, 29, 47, 49, 57, 92 and 117 under 35 U.S.C. § 112 as being indefinite in light of the parentheticals included therein. Claim 25 is rejected as dependent upon itself. Applicant has amended claims 23, 25, 47, 49, 57, 92 and 117 accordingly

to eliminate any ambiguity without change to the scope of any claim. Claim 29 did not contain parenthesis as erroneously noted by the Examiner and therefore was only amended to correct a typographical error.

V. Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-21, 32-45, 55, 58-74, 76-90, 93-96, 98-100, 102-115, 118-122, 127-129, 131, 132, 138-141, 151 and 158-164 under 35 U.S.C. § 103 as being obvious over Chang in view of Marshall, Jurgensen and Moslehi.

All of the rejections are primarily based upon Chang. The Examiner cites Chang as disclosing various processes which can be performed upon a substrate, including sputtering, magnetron sputtering and ion beam sputtering. The Examiner further cites Chang as disclosing subtractive processes such as sputter etching, reactive ion etching, ion beam milling and reactive ion beam milling.

The Examiner states that Chang fails to disclose the apparatus for deposition or cleaning. Marshall is cited for an in-line multi chamber apparatus. The Examiner further states that the use of an in-line system is inherently more efficient because the substrate would be under continuous vacuum.

Moslehi is cited for the teaching that ICP sources surrounded by RF coil segments produce plasma.

Jurgensen is cited for the teaching of coupled RF power for the creation of the plasma.

Chang discloses a method of making a magnetic head for a device such as a hard drive. The disclosure generally identifies a series of processes which may be used to create various layers of different material which comprise the head. Each layer is separately deposited and may

be selectively etched to allow communication between non-adjacent layers or deposition of unlike materials within a surrounding layer.

The Examiner has improperly characterized Marshall as disclosing multiple in-line chambers under continuous vacuum. In the alternative the Examiner has erroneously combined Chang and Marshall, stating that different chambers perform different processes. Marshall discloses a cathodic magnetron utilized for sputtering coatings onto eyeglass lens blanks. The device has a single vacuum chamber 12 divided into three enclosures 14, 16 and 18. The device is adapted to allow loading of the blanks onto a motorized drive at central enclosure 16 through a door. The device then sequentially moves the blanks repeatedly from side enclosures 14 and 18 through central enclosure 16 as multiple passes are needed to coat the blanks. While the device is under continuous vacuum, only cathodic sputtering occurs and only in the central enclosure. No specimen modification activity of any kind occurs in the side enclosures which merely provide room to move the lens blanks back and forth in front of the sputtering cathode located in central enclosure 16.

Applicants' claims, both independent and dependent, all require various combinations of cleaning, etching and coating under continuous vacuum conditions. Applicants concede that Chang discloses cleaning, etching and coating specimens. Chang, however, clearly teaches the use of *separate chambers* for each operation. Column 7, lines 5-10 identify sputter deposition occurring in chamber 180. Lines 10-13 identify sputter etching occurring in chamber 184, while lines 13-17 identify reactive ion etching as occurring in chamber 189. Most importantly, lines 23-25 identify the chambers being placed under various preselected pressures in order to implement the aforementioned processes. Marshall does not teach or suggest the use of multiple

active chambers, nor the use of multiple processes. The Examiner has further utilized hindsight reconstruction to assemble Applicants' device from the myriad references cited.

CONCLUSION

Based on the foregoing remarks, Applicants respectfully submit that claims 1-151 and 158-164 are in condition for allowance.

Respectfully submitted,

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